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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* THOMAS SALUTZKI

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Appeal 2009-004939  
Application 10/518,702  
Technology Center 3600

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Decided: February 26, 2010

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Before: JENNIFER D. BAHR, LINDA E. HORNER, and  
STEVEN D.A. McCARTHY, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

Thomas Salutzki (Appellant) seeks our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 9, 10, and 12-16. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We AFFIRM-IN-PART.

### THE INVENTION

Appellant's claimed invention is a drive device for opening or closing the leaf of a door or window. Spec. 1, para. 0001. Claim 9, reproduced below, is representative of the subject matter on appeal.

9. Apparatus for opening and closing a door leaf, the apparatus comprising:

a housing made of polyoxymethylene plastic, the housing having a recess;

a piston made of polyoxymethylene plastic, the piston having a toothed rack and being arranged for movement in the recess;

a closing shaft comprising a pinion which engages the rack to drive the piston in the recess; and

a closing spring arranged in the recess acting on the piston oppositely to the closing shaft,

wherein the toothed rack is made of metal and is embedded in the piston by molding the polyoxymethylene plastic around the rack so that the rack and the piston form a one-piece element.

### THE EVIDENCE

The Examiner relies upon the following evidence:

Lieberman	US 4,019,220	Apr. 26, 1977
Yahiro	US 6,077,908	Jun. 20, 2000
Ginzel (Ginzel '899)	US 6,618,899 B1	Sep. 16, 2003
Ginzel (Ginzel '255)	WO 00/36255 A2	Jun. 22, 2000

### THE REJECTIONS

Appellant seeks review of the following rejections by the Examiner:

1. Rejection of claims 9, 10, and 12-16 under 35 U.S.C. § 102(e) as anticipated by Ginzel '899.
2. Rejection of claims 9, 10, and 12-16 under 35 U.S.C. § 103(a) as unpatentable over Ginzel '255 and Yahiro.

### ISSUES

The Examiner found that Ginzel '899 and Ginzel '255 each disclose a toothed rack made of metal and embedded in a piston to form a one-piece element as recited in independent claim 9. Ans. 4-5. The Examiner determined Ginzel '899 anticipates claims 9, 10, and 12-16, and alternatively concluded claims 9, 10, and 12-16 are unpatentable over Ginzel '255 and Yahiro. Ans. 3-6.

For each ground of rejection, Appellant argues claims 9, 10, 12, 14, and 16 as a group. App. Br. 4-8. We select claim 9 as the representative claim for each ground of rejection, and claims 10, 12, 14, and 16 stand or fall with claim 9. 37 C.F.R. § 41.37(c)(1)(vii) (2009). Appellant contends that neither Ginzel '899 nor Ginzel '255 discloses molding a plastic piston around a metal rack so that the metal rack is embedded in the piston as required by claim 9. App. Br. 5-7; Reply Br. 1-2.

Appellant also contends that neither Ginzel '899 nor Ginzel '255 discloses the bearing shells being press fit into the housing of the piston as

required by claim 13, and the end plugs being pressed into the housing as required by claim 15. App. Br. 7-8.<sup>1</sup>

The issues before us are:

Does Ginzel ‘899 or Ginzel ‘255 fail to disclose the toothed rack and piston of claim 9 because the references do not disclose molding a plastic piston around a metal rack so that the metal rack is embedded in the piston as required by claim 9?

Does Ginzel ‘899 or Ginzel ‘255 disclose bearing shells press fit into the housing of the piston as recited in claim 13?

Does Ginzel ‘899 or Ginzel ‘255 disclose end plugs pressed into the housing of the piston as recited in claim 15?

#### FINDINGS OF FACT

We find that the following enumerated facts are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Ginzel ‘899 discloses, “[a] piston that consists of external gearing in the form of an inserted toothed rack or toothed rod which is made of metal or plastic is described in U.S. Pat. No. 4,019,220 [Lieberman], hereby incorporated by reference as if set forth in its entirety herein.” Ginzel ‘899, col. 2, ll. 47-50.
2. Appellant admits Ginzel ‘899 incorporates Lieberman. App. Br. 6.

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<sup>1</sup> While Appellant makes the arguments for the patentability of claims 13 and 15 only against the rejection based on Ginzel ‘255 and Yahiro, because Appellant makes reference to Ginzel ‘899 in those arguments, in fairness to Appellant, we apply the arguments to both grounds of rejection.

3. Ginzel '899 discloses a door closer that includes output shaft 3 mounted within output shaft bearings 16 and 17 inside housing 2. Ginzel '899, col. 4, ll. 63-67; fig. 1. Ginzel '899 discloses output shaft bearings 16 and 17 and housing 2 may be made of plastic, and that parts made out of plastic may be "positively and non-positively connected without any subsequent finishing or machining by gluing, ultrasonic welding, laser welding or similar methods." Ginzel '899, col. 5, ll. 2-3; col. 6, ll. 32-35.
4. Ginzel '899 discloses the ends of housing 2 are closed by caps 18 and 19, which are "connected positively and non-positively with the housing 2 either by gluing, ultrasonic welding, laser welding or similar methods." Ginzel '899, col. 5, ll. 10-13; figs. 3, 4.
5. The Examiner found that Ginzel '255 incorporates Lieberman by reference in its entirety. Ans. 5. Appellant does not contest this finding. App. Br. *passim*; Reply Br. *passim*. See also Ginzel '255, 4:3-4.
6. Ginzel '255 discloses a door closer with a piston 10 having teeth 11 mated to the pinion 12 of driven axle 3. Ginzel '255, 8:3-5; figs. 3, 4.
7. Ginzel '255 discloses another embodiment of a door closer that includes driven axle 3 mounted within driven axle bearings 16 and 17 inside housing 2 of piston 10. Ginzel '255, 6:18-22; figs. 1, 2. Ginzel '255 discloses driven axle bearings 16 and 17 and housing 2 may be made of plastic, and that plastic parts are "connected to each other with a non-positive or positive fit without later additional processing through adhesion, ultrasonic fusing, laser

fusing, or the like.” Ginzel ‘255, 6:21-22; 9:8-11.

8. Ginzel ‘255 discloses the lateral ends of housing 2 having closures 18 and 19 which are “connected with a non-positive and/or positive fit to the housing 2 either through adhesion, ultrasonic welding, laser fusing, or the like.” Ginzel, 7:4-6; figs. 1, 2.

## ANALYSIS

### *Claim Construction*

Independent claim 9 is directed to an apparatus for opening and closing a door leaf including a piston made of polyoxymethylene plastic having a metal toothed rack embedded in the piston by molding the piston around the rack to form a one-piece element.

The limitation of “embedded in the piston by molding the polyoxymethylene plastic around the rack so that the rack and the piston form a one-piece element” is a product-by-process limitation. Thus, claim 9 is not limited to any particular process for embedding the toothed rack in the piston.

*Rejection of claims 9, 10, and 12-16 under 35 U.S.C. § 102(b) as anticipated by Ginzel ‘899; and rejection of claims 9, 10, and 12-16 under 35 U.S.C. § 103(a) as unpatentable over Ginzel ‘255 and Yahiro*

### *Claims 9, 10, 12, 14, and 16*

In both rejections, the Examiner specifically finds that the only difference between the piston and toothed rack of claim 9 and that of the prior art Ginzel references is the process by which the structure is achieved. Ans. 7. In response, Appellant has not adequately pointed out a structural difference between the piston and toothed rack of claim 9 and that of the

prior art that would render the claimed structure patentable over the prior art. *See SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1315 (Fed. Cir. 2006) (“Once a product is fully disclosed in the art, future claims to that same product are precluded, even if that product is claimed as made by a new process”); *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985) (“If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.”) (citations omitted).

Rather than pointing out a structural difference between claim 9 and the prior art, Appellant’s argument that the prior art does not disclose molding a plastic piston around a metal rack so that the metal rack is embedded in the piston, is based on the process that makes the product. App. Br. 5-6, 7 (emphasis Appellant’s); Reply Br. 1-2. Appellant’s own argument refers to “molding” as a process. App. Br. 5-6. This argument is unconvincing because “[t]he patentability of a product does not depend on its method of production.” *SmithKline*, 439 F.3d at 1317.

Appellant has failed to demonstrate error in the rejection of claim 9. Claims 10, 12, 14 and 16 fall with claim 9.

#### *Claim 13*

Claim 13 depends indirectly from claim 9, and adds the limitation that the bearing shells are “press fit into the housing.”

Ginzle ‘899 discloses bearing shells “positively and non-positively connected without any subsequent finishing or machining by gluing, ultrasonic welding, laser welding or similar methods” to the housing (Fact 3). Similarly, Ginzle ‘255 discloses bearing shells connected to the housing “with a non-positive or positive fit without later additional



processing through adhesion, ultrasonic fusing, laser fusing, or the like.” (Fact 7).

In both rejections, the Examiner has failed to adequately show how this disclosed connection results in bearing shells that are press fit into the housing as claimed. As such, we cannot sustain the rejection of claim 13 as anticipated by Ginzel ‘899. Further, because Ginzel ‘255 does not disclose each limitation of claim 13, we also cannot sustain the rejection of claim 13 as obvious in view of Ginzel ‘255 and Yahiro. *See CFMT, Inc. v. Yieldup Int’l Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)) (“[O]bviousness requires a suggestion of all limitations in a claim.”).

#### *Claim 15*

Claim 15 depends indirectly from claim 9 and adds the limitation that the end plug is pressed into the housing.

Ginzel ‘899 discloses end plugs “connected positively and non-positively with the housing 2 either by gluing, ultrasonic welding, laser welding or similar methods” (Fact 3). Similarly, Ginzel ‘255 discloses end plugs “connected with a non-positive and/or positive fit to the housing 2 either through adhesion, ultrasonic welding, laser fusing, or the like.” (Fact 8).

The Examiner has failed to adequately show how this disclosed connection results in end plugs that are pressed into the housing as claimed. As such, we cannot sustain the rejection of claim 15 as anticipated by Ginzel ‘899. Further, because Ginzel ‘255 does not disclose each limitation of claim 15, we also cannot sustain the rejection of claim 15 as obvious in view of Ginzel ‘255 and Yahiro.

### CONCLUSIONS

Ginzel '899 discloses the toothed rack and piston as recited in claim 9.

Ginzel '899 does not disclose bearing shells press fit into the housing of the piston as recited in claim 13.

Ginzel '899 does not disclose end plugs pressed into the housing of the piston as recited in claim 15.

Ginzel '255 discloses the toothed rack and piston as recited in claim 9.

Ginzel '255 does not disclose bearing shells that are press fit into the housing of the piston as recited in claim 13.

Ginzel '255 does not disclose end plugs pressed into the housing of the piston as recited in claim 15.

### DECISION

We AFFIRM the Examiner's decision to reject claims 9, 10, 12, 14, and 16 as anticipated by Ginzel '899.

We REVERSE the Examiner's decision to reject claims 13 and 15 as anticipated by Ginzel '899.

We AFFIRM the Examiner's decision to reject claims 9, 10, 12, 14, and 16 as unpatentable over Ginzel '255 and Yahiro.

We REVERSE the Examiner's decision to reject claims 13 and 15 as unpatentable over Ginzel '255 and Yahiro.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

Appeal 2009-004939  
Application 10/518,702

AFFIRMED-IN-PART

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